ABSTRACT

A method (60) for controlling multiple tasks in a real-time operating system (110, 170) assigns priorities to two or more tasks (114, 115; 174, 175). A first task (114; 174) is assigned

5   to be a More Important Task. A second task (115; 175) is assigned to be a Less Important Task. Each task is explicitly informed of its budget allocations. A Guaranteed Budget Margin is then allocated to the More Important Task along with a More Important Guaranteed Budget. A Less Important Guaranteed Budget is also allocated to the Less Important Task. At some point during execution, the higher priority or More Important Task (114; 174) may then

10   determine that the More Important Task no longer requires the Guaranteed Budget Margin, in which case, a Conditionally Guaranteed Budget Margin is then allocated to the Less Important Task (115; 175).